AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1.   (Currently Amended) A device operating as a finite state machine and provided for processing events and actions relating to at least one object to be ~~traveled~~ moved between an initial and a final state, said device comprising a processing member connected to a memory, ~~characterised in that~~ wherein said initial and final state are integrated into at least one event-state-action diagram defining said finite state machine, said memory having an input connected to a state engine editor and being provided for storing said ~~diagram(s)~~ at least one diagram, said state engine editor having an input for receiving object data, identifying said object and said initial and final state, said object data comprising a first set of states, a second set of events and a third set of actions, said third set comprising a first sub-set of processing actions, a second sub-set of timed actions provided to initiate each time at least one predetermined action of said first sub-set after a predetermined time period has lapsed and a third sub-set of transition actions, said state engine editor being provided for forming said diagram ~~by matrix-wise structuring~~ structured as a matrix of said states of said first set and said events of said second set in order to create, at positions within said matrix, a state-event combination, said state engine editor being further provided for attributing to at least one state-event combination at least one of said actions of said third set, said processing member having an input for receiving event-messages and being provided for converting a received event-message into one of said events of said second set, said processing member being also provided for monitoring said states in order to recognize an actual state for said object and for selecting within said state diagram, upon receipt of one of said event-messages, a position within said diagram corresponding to said actual state and said event obtained by said

converting, said processing member being further provided for retrieving said actions located at said selected position and for supplying said retrieved actions to an action dispatcher in order to execute said retrieved action, said action dispatcher comprising for each action of said third set an execution routine provided for controlling said execution of said action.

2. (Currently Amended) A device as claimed in claim 1, ~~characterized in that~~ wherein said state engine editor is provided for attributing to each state-event combination, comprising said initial state, an action selected from among said third sub-set.

3. (Currently Amended) A device as claimed in claim 1 ~~or 2,~~ ~~characterized in that~~ wherein said state engine editor is provided for attributing to each state-event combination, comprising said final state, only actions belonging to said first or second sub-set.

4. (Currently Amended) A device as claimed in ~~anyone of the claims 1 to 3, characterised in that~~ claim 1, wherein said actions belonging to said third set are predetermined.

5. (Currently Amended) A device as claimed in ~~anyone of the claims 1 to 4, characterised in that~~ claim 1, wherein said events belonging to said second set are predetermined.

6. (Currently Amended) A device as claimed in ~~anyone of the claims 1 to 5, characterised in that~~ claim 1, wherein each diagram is identified by a description thereof and a reference to the object to which it belongs.

7. (Currently Amended) A device as claimed in ~~anyone of the claims 1 to 6, characterised in that~~ claim 1, wherein each state is identified by a description thereof and a reference to the diagram to which it belongs.

8.   (Currently Amended) A device as claimed in ~~anyone of the claims 1 to 7, characterised in that~~ claim 1, wherein each event is identified by a description thereof and a reference to the object to which it belongs.

9.   (Currently Amended) A device as claimed in ~~anyone of the claims 1 to 8, characterised in that~~ claim 1, wherein each action is identified by a description thereof.

10.   (Currently Amended) A device as claimed in ~~anyone of the claims 1 to 9, characterised in that~~ claim 1, wherein said state engine editor is provided for forming said diagrams with an XML description.

11.   (Currently Amended) A device as claimed in ~~anyone of the claims 1 to 10, characterised in that~~ claim 1, wherein each transition action of said third sub-set comprises a reference to an event of said second set, a source and a target state as well as a reference to said diagram to which it belongs.

12.   (Currently Amended) A device as claimed in ~~anyone of the claims 1 to 11, characterised in that~~ claim 1, wherein said first sub-set comprises a first class of generic actions and a second class of specific actions identified by a reference to the object to which it belongs.

13.   (Currently Amended) A method for processing, within a finite state machine, events and actions relating to at least one object to be ~~traveled~~ moved between an initial and a final state, ~~operating, characterized in that~~ wherein said method comprises:

receiving object data identifying said at least one object and said initial and final state, said object data comprising a first set of states, a second set of events and a third set of actions, said third set comprising a first sub-set of processing actions, a second sub-set of timed actions provided to

initiate each time at least one predetermined action of said first sub-set after a predetermined time period has lapsed and a third sub-set of transition actions;

forming at least one event-state-action diagram defined in a final state machine pattern of said finite state machine by ~~matrix-wise~~ structuring said states of said first set and said events of said second set <u>as a matrix</u> in order to create at positions within said matrix<u>,</u> each time<u>,</u> a state-event combination;

integrating said initial and final state into said diagram;

attributing to at least one state-event combination at least one of said actions of said third set;

receiving event-messages relating to said ~~object(s)~~ <u>at least one object</u> and converting a received event-message into one of said events of said second set;

~~recognising~~ <u>recognizing</u> said <u>at least one</u> object into said received event-message;

monitoring said states in order to ~~recognise~~ <u>recognize</u> an actual state for said ~~recognised~~ <u>recognized</u> object and selecting within said state diagram upon receipt of one of said event-messages a position within said diagram corresponding to said actual state and said event obtained by said converting;

retrieving said actions located at said selected position and executing said retrieved action by processing an execution routine provided for controlling said execution of said retrieved action.

14.   (Currently Amended) A method as claimed in claim 13, ~~characterized in that said objects are~~ <u>wherein said at least one object includes plural objects, said objects</u> classified by object types, each object being identified by a definition and a description of the object type to which it belongs, and wherein a plurality of event-state-action diagrams are formed for each object, each diagram corresponding to one of said object types, said monitoring further comprising a selection of at least one of said diagrams based on said object type.

15.   (Currently Amended) A method as claimed in claim 14, ~~characterized in that~~ wherein said object types are predetermined.

16.   (Currently Amended) A method as claimed in ~~anyone of the claims 13 to 15, characterised in that~~ claim 13, wherein said at least one object includes a plurality of objects, and for each of [[a]] the plurality of objects, at least one dedicated event-state-action diagram is formed, said event-messages comprising an object identifier, said monitoring further comprising a selection of at least one of said diagrams based on said identified object.

17.   (New) A method as claimed in claim 14, wherein said at least one object includes a plurality of objects, and for each of the plurality of objects, at least one dedicated event-state-action diagram is formed, said event-messages comprising an object identifier, said monitoring further comprising a selection of at least one of said diagrams based on said identified object.

18.   (New) A method for processing, within a finite state machine, events and actions relating to at least one object to be ~~traveled~~ moved between an initial and a final state, wherein said method comprises:
    receiving object data identifying said at least one object and said initial and final state, said object data comprising a first set of states, a second set of events and a third set of actions, said third set comprising a first sub-set of processing actions, a second sub-set of timed actions provided to initiate each time at least one predetermined action of said first sub-set after a predetermined time period has lapsed and a third sub-set of transition actions;
    forming at least one event-state-action diagram defined in a final state machine pattern of said finite state machine by structuring said states of said first set and said events of said second set as a matrix in order to create at positions within said matrix, each time, a state-event combination;
    integrating said initial and final state into said diagram;

attributing to at least one state-event combination at least one of said actions of said third set;

receiving event-messages relating to said at least one object and converting a received event-message into one of said events of said second set;

recognizing said at least one object into said received event-message;

monitoring said states in order to recognize an actual state for said recognized object and selecting within said state diagram upon receipt of one of said event-messages a position within said diagram corresponding to said actual state and said event obtained by said converting;

retrieving said actions located at said selected position and executing said retrieved action by processing an execution routine provided for controlling said execution of said retrieved action;

wherein said at least one object includes plural objects, said objects classified by object types, each object being identified by a definition and a description of the object type to which it belongs, and wherein a plurality of event-state-action diagrams are formed for each object, each diagram corresponding to one of said object types, said monitoring further comprising a selection of at least one of said diagrams based on said object type;

wherein said object types are predetermined; and

wherein said at least one object includes a plurality of objects, and for each of the plurality of objects, at least one dedicated event-state-action diagram is formed, said event-messages comprising an object identifier, said monitoring further comprising a selection of at least one of said diagrams based on said identified object.

19.   (New) A device as claimed in claim 2, wherein said state engine editor is provided for attributing to each state-event combination, comprising said final state, only actions belonging to said first or second sub-set.

20.   (New) A device as claimed in claim 19, wherein said actions belonging to said third set are predetermined.